alone from 3.6% to 45.8%, and omalizumab from 0% to 6%. Annual hospitalizations rates and emergency visits decreased by 78% and 75% respectively. The ICER was 1800€ per controlled patient per year. **CONCLUSIONS:** Managing asthma patients in a specialized AC is cost-effective and has significant impact on patient control, indicating better survival and quality of life for the patient according to published literature evidence.

PRS52

IMPACT OF ALLERGEN IMMUNOTHERAPY ON SYMPTOM-FREE DAYS AND HEALTH CARE COSTS IN PATIENTS WITH GRASS POLLEN-INDUCED ALLERGIC RHINITIS IN GERMANY

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OBJECTIVES: A health economic assessment was conducted to determine the relative impact of treatment with Oralair® or Grazax® on clinical effects and health care costs in patients with grass pollen-induced allergic rhinitis (AR) in Germany. **METHODS:** The effects of three years of drug treatment on symptom-free days (SFDs) and associated costs were assessed using a health economic Markov model with a nine-year time horizon. The relative efficacy on SFDs was assessed through a network meta-analysis (i. e. indirect comparison) of 4-year, placebo-controlled, clinical trial data. Costs associated with drug treatment and other health care resources, including Statutory Health Insurance payments and patient co-payments, were calculated. The incremental costs and SFDs gained for Oralair® relative to Grazax® were generated accordingly. The uncertainty around the model outcomes was determined by means of sensitivity analyses. **RESULTS:** The base case analysis over 9 years predicts a total of 206.6 discounted SFDs for Oralair®relative to 205.1 for Grazax®, thus resulting in 1.5 (95%CI: -25.0; 29.3) additional SFDs gained with Oralair®. Total discounted costs are estimated at €1,696 and €2,968 for Oralair® and Grazax®, respectively, with incremental costs predicted at -€1,272 (95%CI: -€1,530; -€999). Hence, Oralair® may be classified as the dominant strategy, as additional effects are combined with considerable cost savings. The sensitivity analyses suggest that results were mostly driven by drug-specific clinical effects on SFD, inputs for immunotherapy discontinuation, and length of the pollen season. The predicted cost savings were driven by the difference in treatment costs. **CONCLUSIONS:** Oralair® is cost-effective relative to Grazax®in patients with grass pollen-induced AR in Germany. Findings are confirmed by extensive sensitivity analyses.

PRS53

ECONOMIC EVALUATION OF THE USE OF AN INFANT FORMULA BASED ON PARTIALLY HYDROLYZED SERUM PROTEIN AS COMPARED WITH A STANDARD WHOLE COW'S MILK FORMULA FOR PREVENTION OF ATOPIC DERMATITIS IN CHILDREN UNDER 3 YEARS OLD

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OBJECTIVES: To evaluate the potential economic impact of the 100% whey-based partially hydrolyzed infant formula (PHF-W) in comparison with a cow's milk standard formula (SF) in the prevention of atopic dermatitis (AD) in at-risk children at the age periods 0–12 and 0–36 months in Russia. **METHODS:** The Excel model was constructed to estimate costs of artificial feeding with PHF-W vs SF and expected AD cases treatment. The model was based on the results of meta-analysis of randomized controlled trials (RCTs), literature data and the results of the expert survey. The costs of artificial feeding and AD treatment were calculated from the positions of different payers: health care system, family, and society as a whole. The incremental cost-effectiveness ratio (ICER) per averted AD case was calculated for PHF-W vs SF. **RESULTS:** From health care system point of view the use of PHF-W uniquely lead to cost savings. If we consider all costs from the societal perspective PHF-W vs SF requires additional costs in the first year of baby's life, but in leads to cost savings in a 3-year horizon. From the perspective of the at-risk child's family artificial feeding costs will increase from 266 to 408 Euro for PHF-W vs SF. However the likelihood of AD development in a child will decrease from 15 to 8% in the first year and from 27 to 19% over three years and accordingly this will prevent AD treatment costs. **CONCLUSIONS:** Using PHF-W for the AD preventionin high-risk children have benefits for both the health system and for individual family.

PRS54

A COST-EFFECTIVENESS ANALYSIS OF TREATMENT FOR MILD TO MODERATE OBSTRUCTIVE SLEEP APNEA-HYPOPNEA SYNDROME (OSAHS) IN FRANCE

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OBJECTIVES: In France, continuous positive airway pressure (CPAP) is recommended as first-line treatment for patients with severe OSAHS or mild-to-moderate OSAHS with high cardiovascular risk. Dental devices are recommended as second-line treatment for these patients and can be suggested as first-line treatment for mild-to-moderate OSAHS patients without high cardiovascular risk. Lifestyle advice is recommended for overweight patients. This study aims to assess the cost-effectiveness of these treatments for mild-to-moderate OSAHS patients. **METHODS:** This study was commissioned by the French National Authority for Health (HAS) and followed their recommendations. A Markov model was developed to simulate the lifetime progression of a cohort of mild-to-moderate adult OSAHS patients. CPAP was compared with dental devices, lifestyle advice and no treatment. Daytime sleepiness, cardiovascular disease and road traffic accidents were taken into account. Clinical parameters were taken from international publications. Costs were retrieved from the French national health insurance databases: Assurance Maladie and Technical Agency of Information on Hospitals (ATIH). Costs and outcomes were discounted at 4% through 30 years and 2% thereafter. Robustness of results was assessed using sensitivity analyses. The assessed outcomes were the incremental cost per quality-adjusted life-year (QALY) gained and total life-years gained (LYG). **RESULTS:** This study will inform public decision making about reimbursement of mild-to-moderate OSAHS treatments. CPAP was associated with higher costs and QALYs compared with dental devices, lifestyle advice and no treatment. Several sensitivity analyses were undertaken and it was found that the most sensitive parameters were related to sleepiness and cardiovascular inputs. Further investigation (clinical trial/observational study) of treatment effects on these parameters is needed. **CONCLUSIONS:** This analysis is the first to assess the cost-effectiveness of treatments in mild-to-moderate OSAHS patients in France. The technical report of this research will be available on the HAS website at the time of the congress (November 2014).

PRS55

COST-EFFECTIVENESS OF SUBCUTANEOUS IMMUNOTHEREAPY IN ALLERGIC RHINITIS USING ONE OR MORE ALLERGENS - AN ANALYSIS LONG OVERDUE

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OBJECTIVES: Allergic rhinitis – hay fever and mite hypersensitivity - is a prevalent and increasingly common condition, causing considerable morbidity and economic burden to society. A minority of patients have an indication for subcutaneous immunotherapy (SCIT). SCIT using extracts of tree pollen, grass pollen and/or house dust mite is common practice in The Netherlands, Europe and beyond. SCIT is widely reimbursed, but very few prospective cost-effectiveness studies have been done. **METHODS:** An open-label, 2-year, multicenter, randomized controlled trial with two parallel treatment arms was performed, comparing SCIT + usual care (UC) with UC alone, using online resource use and labor productivity questionnaires, and electronic versions of EQ-5D®, SF-36® and a global subjective assessment of symptoms (GA). Primary endpoints were the costs per QALY, costs per successfully treated patient and the cost per additional symptom-free day. A Generalized Estimation Equation (GEE) model was estimated with mean two-week health care/societal costs as dependent variable, followed by a 1000-iteration bootstrap procedure. **RESULTS:** A total of 183 adult patients aged 18 to 45 years with persistent moderate to severe allergic rhinitis due to one (43%) or more (57%) allergies (93 SCIT+UC, 90 UC) were included. There were no significant differences at baseline. The percentage of patients that reported to be treated successfully was 36% in SCIT and 20% in UC after two years. Other health outcomes did not differ between SCIT and Usual Care. Two-year costs of SCIT were 2946 Euro per patient. There was no difference in other costs. Cost per additional successfully treated patient were about 15,000 Euro. For the other outcomes, SCIT was dominated by UC. **CONCLUSIONS:** This study could not support the cost-effectiveness of SCIT. A restriction in the indication of SCIT to patients with severe persistent rhinitis, not sufficiently responsive to maximum symptomatic therapy may improve cost-effectiveness.

PRS56

IMPACT OF ALLERGEN IMMUNOTHERAPY ON QUALITY OF LIFE AND HEALTH CARE COSTS IN ADULTS AND CHILDREN WITH GRASS POLLEN-INDUCED ALLERGIC RHINITIS IN GERMANY

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OBJECTIVES: To determine the relative impact of treatment with Oralair®, Grazax®, Alutard® or symptomatic drug treatment (SDT) on clinical effects and health care costs in subgroups of adults and children with grass pollen-induced allergic rhinitis (AR) in Germany. The cost-effectiveness of Oralair® has been demonstrated in a mixed population in previous research. **METHODS:** The effects of three years of drug treatment on quality-adjusted life years (QALYs) and associated costs were assessed using a Markov model with a nine-year time horizon. Symptom score data were extracted, and the relative efficacy on QALYs was assessed through a network meta-analysis (i. e. indirect comparison) of placebo-controlled, clinical trial data in adults and children. Patient symptom scores were translated into the impact on quality of life by means of published sources. Costs associated with drug treatment and other health care resources, including Statutory Health Insurance payments and patient co-payments, were estimated. The incremental costs and QALYs were generated accordingly. The uncertainty around the model outcomes was determined by means of sensitivity analyses. **RESULTS:** In adults, the analysis predicted more QALYs for Oralair® relative to Grazax®, 0.008 (95%CI: -0.043; 0.062) and Alutard®, 0.028 (95%CI: -0.029; 0.093), combined with incremental costs of -€1,272 (95%CI: -€1,530; -€999) and -€129 (95%CI: -€389; €160) per patient, respectively. Hence, Oralair is dominant relative to Grazax® and Alutard® in adults. The incremental cost-effectiveness ratio was estimated at €15,503 per QALY relative to SDT. Similar results were observed in children, with the exception of Alutard® (lack of data). The sensitivity analyses suggest that results were mostly driven by drug-specific clinical effects on symptom score, drug costs, inputs for immunotherapy discontinuation, and length of the pollen season. **CONCLUSIONS:** Oralair® is cost-effective relative to Grazax®, Alutard® and SDT in grass pollen-induced AR in Germany. Findings were confirmed again and supported by extensive sensitivity analyses.

PRS57

ECONOMIC EVALUATION OF OMALIZUMAB COMPARED WITH STANDARD THERAPY IN THE TREATMENT OF SEVERE ALLERGIC ASTHMA IN ADULT PATIENTS IN GREECE: A COST EFFECTIVENESS ANALYSIS BASED ON CLINICAL TRIAL AND REAL-WORLD DATA

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